Preface:

The proposition in this document is a preliminary proposition for how to create a virtual economy that distributes wealth evenly amongst a population, and allocates political and financial power to a population within a virtual network. This proposition is intended as an alternative or back-up to Hashgraph's current iteration of a distributed network and economy using similar algorithmic procedures to ensure stability, security, and speed. This theory is predicated upon **Modern Monetary Theory (MMT)**, and several archaic models of economic theory developed by **Michael Hudson & David Graeber** applied within the modern framework of a virtual economy.

Currency Value Stabilization Equation:

All adult members of the network are guaranteed to receive a one time reward of **10,000 *units*** of population based currency upon having their identities verified by a state apparatus, and/or an algorithm that solves for virtual identity.

Virtual identity will be established on the basis of an honor system (potentially reinforced by legislative measures), and solved using a simple algorithm. All users will be required to verify the virtual accounts of a minimum of **150 people** (Dunbar's Number). By verifying an account a user will say two things:

1. I have spoken with the owner of this account outside of the network (in real life, Telephone, Email, or other method of communication), and they have confirmed that this is their only virtual identity on this network, and thus I hereby verify them as authentic.
2. That the user I have verified, will only verify other users that they have spoken to and verified themselves in the same fashion as I have verified them.

By adhering to these two simple rules within a secure system, a user can build a *relational understanding* of which accounts are likely to be real on their personal network by building logical chains of trust through people and institutions that they themselves know.

Once a user *receives* **150** unique verifications from **150 citizens**, they themselves will achieve full **citizenship** and receive their currency reward for joining the network (**10,000 units**). Users will be able to set sophisticated levels of trust, wherein they only financially interact with people that can trace a chain of verification back to themselves, or to other appointed citizens on the network. Communities and networks will then be able to form small governments that group together into larger governments and verify each other, allowing for a scalable planetary system of identity to form.

Every year currency will be removed from the network in the form of a mandatory global tax called **The Death Tax**. **The Death Tax** performed at an equal distribution will be approximately **1%** of the balance of all users **annually**, or **~0.02% weekly** (calculated by average deaths per year). This tax will ensure that there is always **exactly 10,000 *units*** of currency per **Adult**

person on the network at the start of each fiscal year/week. How these taxes are paid by a population can be managed by a virtual democratic political process on the network. If a user should verify an account proven to be fake (IE: not representing a real person), the user who verified this account takes up a share of the financial burden of recovering the cost of the fake account, to ensure that **10,000 units** of currency are destroyed to maintain the equilibrium of the currency. This procedure will ensure that users are incentivized to be diligent about who they verify on the network.

A **Negative Balance** will only ever occur in the instance that a user cannot cover the cost of their network taxes or fees. Upon entering a negative Balance, the Financial account will become unusable until the balance is recovered.

As new **users** on the network achieve **citizenship** and receive **10,000** ***units***, Currency is reintroduced into the money supply, while granting the young adult the financial opportunity to start a business, invest, receive further education, or purchase a home. Aside from being advantageous to the individual, this stimulates economic growth for the whole economy in a stable manner by staying exactly in alignment with the growth of population and available labor.

The stabilization of the currency's value relative to the population means that you have an honest economy, or **labor based currency**. This currency's value will perpetually be agreed upon via market consensus, and will reliably rise and fall with the market productivity of the network as a whole. This currency's stability and reliability is **dependent** on it being the **only currency used within the network**.

This model ensures that money and power remain in the hands of the general population. Any business or state entity that wishes to gain access to capital, will be forced by this system to solicit individuals for funds. In this system, banks will function as a proxy between individuals and Businesses, and will function technically as an investment service.

Lastly, it should be noted that **10,000 units** is an arbitrary starting number based on estimations from calculations listed below. So long as the amount being distributed remains constant, the value of the currency will always remain the same. Under this system, there will technically never be any need to create more or less currency, because the market will find the value of the currency within the available parameters. This starting number is only a matter of convenience for readability in everyday transactions.

Miscellaneous Notes:

1. Anti-Usurious system, no interest can be collected on ANY loans to prevent debt crisis.
2. Stocks can not be traded: Corporations Choose who to sell their stocks to (Parameters: Age/Region/Employees/international/etc), and conversely, all stock purchases are final.
3. The finality of stock purchases ensures that all investors are fully invested in a company.
4. All corporations finance operations by soliciting individuals for funds by selling stocks.
5. Stock ownership functions as weighted voting mechanism for corporate governance.

Global Population Statistics:

Total Population: ~= 7.6 B

Child Population < 18yo = 24% of Total Population = 1.824 B

15yo < Working Age Population < 64yo ~= 65% of Total Population = 4.94 B

Retirement Age Population > 64yo ~= 11% of Total Population = 800,360,000

Adult Population > 18yo = 76% of Total Population = 5.776 B

Birth to Death Ratio:

19/1000 Births to 8/1000 Deaths per year

Net gain of 11/1000 Births per year (Growth Ratio) (~1%)

Currency Statistics:

5 Trillion USD Guaranteed Global Circulating Currency Supply

37 Trillion USD *Narrow* Money Supply

90 Trillion USD *Broad* Money Supply

~ 1 Quadrillion USD Global Derivatives Supply (Including Crypto)

Conclusion:

A Population based currency supply distributed at **10,000** ***units*** per 18+ Adult person would have a minimum global valuation of (*Guaranteed Supply* Divided by *Total Adult Population*) **$865.65** per **10,000** ***units*** of population based currency. Or **~$0.09** per **1** ***unit***.

Factoring this equation with Narrow Money Supply offers a valuation of **$6,406** per **10,000** ***units*** of population based currency. Or **~$0.64** = **1** ***unit*** of population based currency.

Factoring this equation with Broad Money Supply offers a valuation of **$15,581.72** per **10,000** ***units*** of population based currency. Or **~$1.56** per **1** ***unit*** of population based currency.

Factoring this equation with Derivatives Supply offers a valuation of **$173,130.19** per **10,000** ***units*** of population based currency. Or **~$17.31 per 1** ***unit***

In conclusion, this system functioning at global scale could theoretically be valued anywhere between $0.10 - $20.00 roughly speaking. The added value of financial security within this system, and the distributed access to capital could create for a much more productive economy, and thus increase the value of the currency. Considering the natural growth of populations and labor forces along with the infinite space of digital economies, it may be plausible that this currency could reach an even higher valuation over time, growing with productivity, population, and the general economy.

As a final note, it should be noted that the valuation of the currency will depend on a number of different factors:

1. Asset Valuation
    a. Material worth of machines physically running the network
        i. Server Farms
        ii. Desktops, Laptops, Home PC's
        iii. Routers, IOT, etc...
2. Stability
    a. How stable/secure are the algorithms running the network?
        i. Cryptography & Security
        ii. Fair Distribution
        iii. Identity
3. Competitors
    a. Are there competing Crypto currencies on the network?
    b. Are there other forms of currency storing value outside of the network?
4. Trust
    a. Are there algorithmic procedures to ensure trust?
    b. Are there legal procedures to ensure trust?
        i. Criminal penalties for illegal modifications to the network
        ii. Perjury penalties for giving false witness on the network
    c. How many governments accept this currency as payment?
    d. How many business organizations accept this currency as payment?
    e. Are public records accessible for all users
    f. Do ISPs help to monitor and protect the network?
5. Market Penetration
    a. What level of markets does the currency penetrate
        i. Cash/Circulating Markets (5 Trillion USD)
        ii. Checking Banking Markets (32 Trillion USD)
        iii. Savings Trust Markets (53 Trillion USD)
        iv. Derivatives and Investment Markets (~1 Quadrillion USD)
    b. How deep is the penetration of these markets

Administrative Taxation Proposal (Concerning capital acquisition for governmental functions)

1. Purpose:
    a. Healthcare / Disability
    b. Social Security / Retirement
    c. Education
    d. Transportation
    e. Public Works (New Deal)
    f. Political Administration
        i. Government Office
        ii. Criminal Justice
        iii. Security / Police / Military
    g. Incentivization Mechanism (MMT)
2. Taxable Objects *TBD per province according to democratic procedures*
    a. Land (where property is owned)
        i. Taxed per sq. ft. to incentivize apartment living
        ii. Taxed monthly as a rent payment to the state
    b. Health Concerns
        i. Sugar / Wheat / Corn Syrup / Soda / Chips / Salt / Candy
        ii. Alcohol
        iii. Tobacco
    c. Environmental Concerns (Formerly Carbon Tax)
        i. Shipping / Postal Service (Consumer Tax)
            1. Incentivize local production of goods
        ii. Private Vehicles (not including Semi Trucks or Business Trucks)
            1. Point of purchase (Diesel/gasoline/lesser for hybrid/Motorcycle)
            2. Vehicle Registration (All Vehicles)
        iii. Gasoline/Coal/Natural Gas Energy Sources (Reduce Smog/Co2)
        iv. Non-Recyclable Plastics
        v. Toxic Waste Disposal
        vi. Wood based Products (temporary)
            1. Assist reforestation efforts as needed
            2. Incentivize hemp based paper/board/fiber materials
        vii. Sand based Products (temporary)
            1. Ration limited/dwindling sand resources for glass/concrete
        viii. Top Soil
            1. Disincentivize disruption of natural environments
        ix. Animal Cruelty tax
            1. Sq. ft. free range requirement per animal

3 Major Inflationary Sectors that have fallen into disrepair under the current economic model:

1. Health Care

a. Socialized: paid in government mandated taxes
b. Patents: Removal of all Pharmacological patents, end of patent program.
c. Naturalized: Access to Cannabis and other natural products at low cost for treatment.
d. Tax incentives: Imposition of taxes on health risk products
    i. Sugar
    ii. Wheat
    iii. Tobacco
    iv. Alcohol
e. Insurance Price reduction:
    i. If citizen utilizes fitness membership
    ii. If citizen works a 40 hour work week in a manual labor job
f. Socialized Medical Education

2. Education
    a. Socialization of all STEM fields
    b. Limited Access Liberal Arts (11% of population maximum)
        i. Art Teacher Selection Process
            1. Teachers nominate quota of students to a board of Directors
            2. Directors select which students will receive funding
            3. This process is completed without the student's knowledge
            4. These students receive access to specialized arts schools
        ii. Maintain high standards of education quality
        iii. Art, History, Performance, Politics, Philosophy, Linguistics, Lit, Media, etc...
        iv. Limiting access to Arts education funds is to ensure that the majority of society has access to education in STEM that guarantees a paying job.
        v. The selection process is to ensure that arts schools are composed of the most talented artists society has to offer, and that these artists refine their thinking and craft by being surrounded by other dedicated artists.
        vi. Students who fall below school standards can thus be easily removed and replaced due to the prestige of the arts scholarship. This will incentivize arts schools to remain productive and prevent degeneration.
        vii. This system will produce professional artists, and Arts educators that will develop the arts within society, and train the next generation.
    c. Highschool Specialization programs
        i. Intern/Apprenticeship Diploma equivalency
        ii. X-hours of internship/Job Experience = Y Diploma
    d. Public Works On the Job Training (New Deal)
        i. No Education required
        ii. Employment Guarantee
3. Land and Home Ownership
    a. End all rent seeking activity in the housing sector and rebalance the economy

b. **LEVITICUS 25:23 - "**The land shall not be sold for ever: for the land *is* mine; for ye *are* strangers and sojourners with me."
c. Formally end all forms of land ownership in a way that is economically feasible

Land Acquisition & New Deed System (LANDS)

A major factor of wealth redistribution will be a means of periodically redistributing Land & Property in a manner that is consistent with the methods of archaic civilizations who performed land redistribution regularly as a means of systemic debt relief. If managed properly, this approach will perpetually maintain a middle class that can devote themselves to public works projects. Land will fall into 5 general types:

1. Public - Government owned Land (Parks, Gov. Offices, Wildlife Reserves)
2. Urban - Business and Factory Properties (any property where commerce or Manufacturing occurs as the primary purpose of the building, owned by a business)
3. Sub-Urban - Housing Properties (Single Houses, Multi-Plex, Condos, Apartments, Small Businesses on privately owned land)
4. Sub-Rural - Rural Properties (Cabins, Wilderness, Leisure Properties)
5. Rural - Agricultural Properties (Arable Land, Animal Farms, Productive Land)

Land Redistribution will occur as follows:

After the network attains legal legitimacy, the network will declare nationalization of all land-bound property within a legally legitimate regional area. All land and property types within the boundary will thus become owned by the state, and the state will rent the land out to the people by opening a public auction. The properties themselves will not be rented out, but given to the tenant that pays the Land tax on the property. Minimum Land rental rates will be calculated by sq. ft. of land used per property, apartment renters will pay less than home renters, and this will incentivize urbanization, and gradually, the expansion of natural wildlife and the maintenance of planetary ecological health. This "rent" will be a tax paid to the government, as a driver for the currency, and also as a means for government agencies to fund programs. The auction of this land will allow for markets to dynamically set the rental/tax rates without a bureaucratic authority, the government in this case will simply offer the properties to the highest bidder. Agricultural Land owners will be given guarantees to maintain their current properties to ensure that the agricultural industry is not interrupted.

Under LANDS persons will borrow land deeds from the state, for the price of a tax. New buildings constructed on this land however, will be the full property of the individual(s)/business(es) who paid for the construction. After completing construction the property and it's owners are registered in a LANDS deed that is directly attached to the lot that it is on. In the instance that a person cannot pay the monthly land rental/tax in credits, they may offer a share of their property to the government as payment. These shares can always be purchased back by the same tenant who sold it at a later date. The government cannot sell the property itself or their shares in the property at any time.

In the initial nationalization phase, the government acquires ownership of all land and the land-based properties on it. During the initial offering of a deed(The first time a plot of land and associated properties are auctioned within this system) Both the deed AND the property will be registered with highest bidder. Over time, some individuals may fall into debt to the government, and offer their properties as payment and thus be left without a property. Thus every 50 years (according to the biblical Jubilee year) all properties acquired by the government will be returned to the original owner or the trustee of their will. Government acquired properties will be listed as such, and function as rental properties, held in trust by the government. Any tenant who chooses to reside in these government owned properties will only pay for the land tax. However, these tenants may not build or destroy anything on the property without explicit permission from the government, and all damages to the property must be paid in full. Failure to meet the obligations of living in these properties should result in fines or mandatory public service. These rules are to ensure that the property is maintained as much as possible until the 50 year jubilee period is reached and the property is returned to its former owner. The former owner may reside in this property while the government maintains ownership of it. Whoever the tenant may be, the government will never charge for property rental, only for land rental in the form of the monthly land tax.

(INSERT: How financing of new properties is handled / Banking? / Socialization?)

Under this system, the collective of the people within a jurisdictional region acquire custody of the land in the form of the state, and use it as the primary taxation device for acquiring government revenue. Considering that a majority of government activities (policing/elections/etc…) will be performed on a virtual network by a volunteer community effort, these “rental/tax” prices could be much lower than conventional rental rates under the current monetary system. Other tax revenues will be available to the government outside of land taxes as well, and thus this system can be fine tuned with other taxable items through a democratic political process to arrive at acceptable prices.

Estate Law: Prevent the buildup of wealth within family dynasties. Maintain a fair distribution of currency across time. “You can’t take it with you rule” All currency will be dissolved into the monetary system and cover that year’s taxes for family and friends as pre-determined through a will. Inheritence can only go towards tax relief, and can be left in a family trust to cover taxes. All left over un-specified income of the deceased goes towards alleviating the death tax of their immediate community equally.